

Appendix M: Northeast Temperate Network Budget Projections

Introduction

In preparation for the Vital Signs Selection workshop, we prepared the following tables of 3 hypothetical staffing scenarios that could be used to implement the NETN monitoring plan. The primary objective of this exercise was to provide a fiscal framework to aid in the prioritization of Vital Signs *a priori* and avoid re-prioritization of Vital Signs *post-hoc* once the financial limits of implementation are realized. The results of this exercise are not meant to present the only implementation scenarios possible for the Network, nor do they provide a comprehensive set of possibilities, but they do indicate how staffing and expenses can affect a long-term program with no guarantee of increased budgets and should assist in Vital Signs selection.

We developed 3 basic staffing scenarios to implement the NETN monitoring plan and projected the overall costs to the program based on the present level of annual funding (Tables 1-3; Figure 1). To estimate salary and benefits we used the [locality pay table](#), added 30% of the salary for benefits, and included a 4% annual cost of living increase. We projected each position through the standard step increases within each pay grade to estimate the total permanent personnel expenses. We included administrative, travel, and equipment expenses for each year and summed the salary and expenses to estimate total expenses. The balance after accounting for these expenses is the amount the Network could use for projects, agreements, and/or field crew staff to implement the monitoring plan. We calculated the cost of 1 seasonal staff person for 6-months and divided the remaining balance by the field staff salary to determine the number of field crew employees the Network could afford with each staffing scenario. We then determined how many seasonal employees we could distribute (evenly) among the 10 (not including the AT for implementation at this time) Network parks.

Staffing Scenarios

1) Core I&M staff + 3 crew leaders – Scenario 1 would add 3 new positions to the Network that would act primarily as field crew leaders. These positions would be graded at GS09 and distributed throughout the Network to support the I&M program at Acadia, the Boston Area Parks (BOHA, MIMA, SAIR), and the southern parks (MORR, ROVA, WEFA), leaving the core I&M staff (Coordinator and Data manager) to implement the monitoring in SAGA, MABI, and SARA. This scenario provides effective logistical support to implement the monitoring in “sub-networks” of parks by locating crew leaders in parks. These personnel become familiar with the monitoring protocols, train field crews, and by being locally stationed, they could develop partnerships with local conservation organizations to better implement the monitoring and disseminate the information.

This scenario expends 49% of the budget in year1 and 61% in year10 for personnel, leaving 39% of the budget for field crews or projects after other accounting for other expenses (Table 1). Although having staff distributed throughout the Network to service multiple parks is logistically positive, it does add a layer of administrative complexity and relying on GS09 graded positions (likely recent masters level graduates) to implement monitoring, training field crews, QA/QC data, and submit data to the Network may be more responsibility than the grade implies.

2) Core I&M staff + 1 Network Ecologist – Scenario 2 would add 1 Network ecologist (GS12) to the core staff that would assist in all aspects of monitoring program implementation (Table 2). This scenario provides the opportunity for a staff person to be partly dedicated to the analysis, interpretation, and reporting of monitoring results and the integration of these results with other park and non-park programs.

Scenario 2 expends 47% of the budget in year1 and 58% in year10 for personnel, leaving 53% of the budget for field crews and projects after other expenses are accounted (Table 2). Having a Network ecologist whose primary focus was to analyze, interpret, and report the monitoring program data would provide the necessary link between the monitoring program information and managers, planners, and superintendents that will need these data presented in an accurate and timely fashion.

3) Core I&M staff only – Scenario 3 would maintain the Network at the present staffing level (coordinator and data manager) and obviously leaves the largest percentage of the budget for projects or field crew (Table 3 and 4).

This scenario expends 35% of the budget in year1 and 43% in year10 on personnel and other expenses. Creating an efficient monitoring program is necessary for success; however, understaffing can cause problems in maintaining, interpreting, and disseminating the information.

Figure 1. Summary of projected Network remaining funds given three hypothetical staffing scenarios during the first 10 years of the program. The “core staff only” scenario leaves the greatest remaining funds (\$361,368) while the “3 crew leader” scenario only leaves \$156,525 after 10 yrs. Values indicate the amount of the network budget that remains after accounting for permanent staff, travel, and expenses.

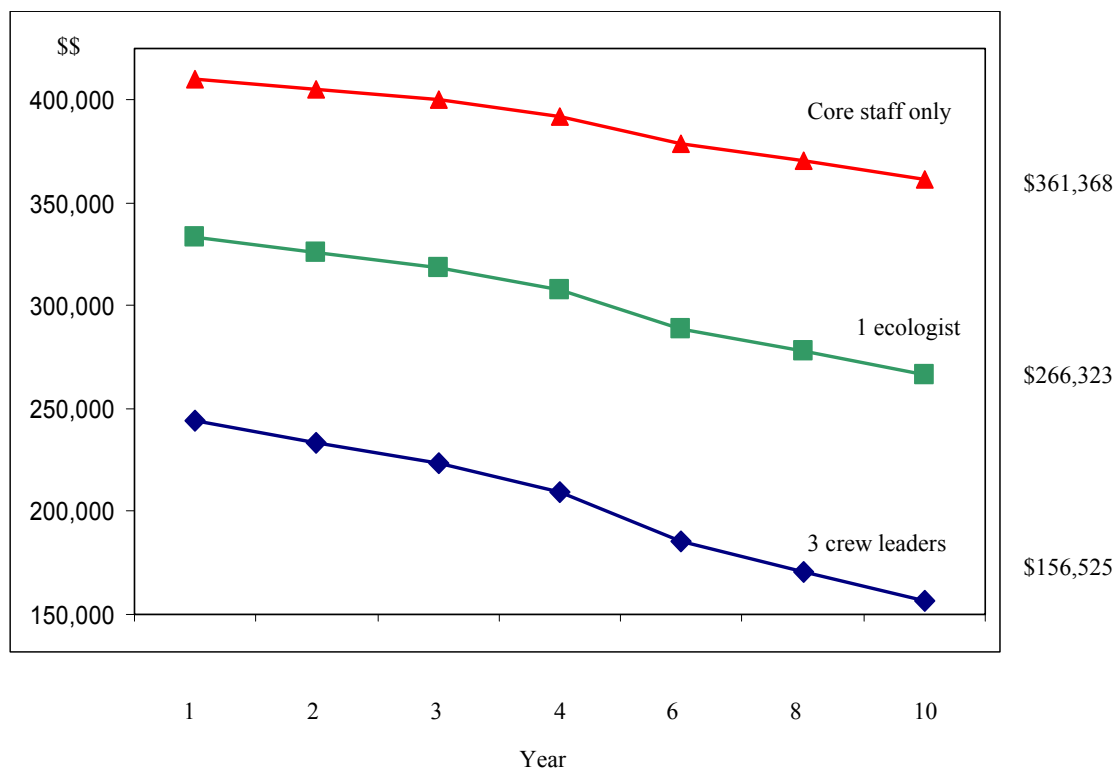


Table 1. Northeast Temperate Network staffing scenario 1. This scenario would have three (3) I&M crew leaders stationed throughout the network to assist in monitoring program implementation. Total network staffing would be five (5) permanent I&M staff, 49%-61% of the total income would be expended on salaries and benefits leaving 39%-25% of the total income for field crew or projects over a 10 yr period, respectively.

	year1	year2	year3	year4	year6	year8	year10
Vital Signs Income (excluding water quality funding: \$60,000)	631,200	631,200	631,200	631,200	631,200	631,200	631,200
Personnel (Full-time, permanent)							
1 Crew Leader, Acadia (GS9)	53,185	54,957	56,730	58,503	62,077	63,902	65,728
1 Crew Leader, Boston (GS9)	55,909	57,773	59,637	61,501	65,256	67,176	69,095
1 Crew Leader, Hyde Park, NY (GS9)	56,875	58,771	60,667	62,563	66,384	68,338	70,290
1 Network Coordinator, VT (GS12)	77,125	79,697	82,268	84,839	90,020	92,667	95,315
1 Data Manager, VT (GS11)	68,974	71,273	73,571	75,871	80,504	82,870	85,238
Permanent Personnel Expenses Total	312,067	322,471	332,873	343,277	364,240	374,953	385,667
% of total income	49%	51%	53%	54%	58%	59%	61%
Admin./Travel/Equipment Expenses							
Admin.(MABI, ACAD, MIMA, ROVA)	35,000	35,000	35,000	36,750	38,588	40,517	42,543
Travel	30,000	30,000	30,000	31,500	33,075	34,729	36,465
Equipment	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Admin./Travel/Equipment Expenses Total	75,000	75,000	75,000	78,250	81,663	85,246	89,008
% of total income	12%	12%	12%	12%	13%	14%	14%
Total Expenses	387,067	397,471	407,873	421,527	445,902	460,199	474,675
% of total income	61%	63%	65%	67%	71%	73%	75%
Balance after core personnel & expenses	244,133	233,729	223,327	209,673	185,298	171,001	156,525
% of total income	39%	37%	35%	33%	29%	27%	25%
Potential Field Crew for Implementation							
1 Seasonal (GS5) 6-months/year	15,407	15,920	16,434	16,947	17,461	17,975	18,488
Number of Seasonal Employees/year	16	15	14	12	11	10	8
Number of Seasonal Employees/year/park	2	1	1	1	1	1	1

All full-time personnel expenses include 30% benefits and a 4% annual cost of living increase, seasonal staff include 10% benefits.

Table 2. Northeast Temperate Network staffing scenario 2. This scenario would augment the I&M core staff by adding a network ecologist to assist in monitoring program implementation. With 3 permanent I&M staff in the NETN, 35%-44% of the total income would be expended on salaries and benefits leaving 53%-42% of the total income for field crew or projects over a 10 yr period, respectively.

	year1	year2	year3	year4	year6	year8	year10
Vital Signs Income	631,200	631,200	631,200	631,200	631,200	631,200	631,200
(excluding water quality funding: \$60,000)							
Personnel (Full-time, permanent)							
1 Ecologist, Acadia (GS12)	77,125	79,697	82,268	84,839	90,020	92,667	95,315
1 Network Coordinator, VT (GS12)	77,125	79,697	82,268	84,839	90,020	92,667	95,315
1 Data Manager, VT (GS11)	68,974	71,273	73,571	75,871	80,504	82,870	85,238
Permanent Personnel Expenses Total	223,224	230,666	238,107	245,550	260,544	268,204	275,869
% of total income	35%	37%	38%	39%	41%	42%	44%
Admin./Travel/Equipment Expenses							
Admin.(MABI, ACAD, MIMA, ROVA)	35,000	35,000	35,000	36,750	38,588	40,517	42,543
Travel	30,000	30,000	30,000	31,500	33,075	34,729	36,465
Equipment	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Admin./Travel/Equipment Expenses Total	75,000	75,000	75,000	78,250	81,663	85,246	89,008
% of total income	12%	12%	12%	12%	13%	14%	14%
Total Expenses	298,224	305,666	313,107	323,800	342,207	353,450	364,877
% of total income	47%	48%	50%	51%	54%	56%	58%
Balance after core personnel & expenses	332,976	325,534	318,093	307,400	288,994	277,750	266,323
% of total income	53%	52%	50%	49%	46%	44%	42%
Potential Field Crew for Implementation							
1 Seasonal (GS5) 6-months/year	15,407	15,920	16,434	16,947	17,461	17,975	18,488
Number of Seasonal Employees/year	22	20	19	18	17	15	14
Number of Seasonal Employees/year/park	2	2	2	2	2	2	1

All full-time personnel expenses include 30% benefits and a 4% annual cost of living increase. Seasonal staff includes 10% benefits.

Table 3. Northeast Temperate Network staffing scenario 3 = I&M core staff implement monitoring program. With 2 permanent I&M staff in the NETN 23%-29% of the total income would be expended on salaries and benefits leaving 65%-57% of the total income for field crew or projects over a 10 yr period, respectively.

	year1	year2	year3	year4	year6	year8	year10
Vital Signs Income (excluding water quality funding: \$60,000)	631,200	631,200	631,200	631,200	631,200	631,200	631,200
Personnel (Full-time, permanent)							
1 Network Coordinator, VT (GS12)	77,125	79,697	82,268	84,839	90,020	92,667	95,315
1 Data Manager, VT (GS11)	68,974	71,273	73,571	75,871	80,504	82,870	85,238
Permanent Personnel Expenses Total	146,099	150,970	155,839	160,710	170,524	175,537	180,554
% of total income	23%	24%	25%	25%	27%	28%	29%
Admin./Travel/Equipment Expenses							
Admin.(MABI, ACAD, MIMA, ROVA)	35,000	35,000	35,000	36,750	38,588	40,517	42,543
Travel	30,000	30,000	30,000	31,500	33,075	34,729	36,465
Equipment	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Admin./Travel/Equipment Expenses Total	75,000	75,000	75,000	78,250	81,663	85,246	89,008
% of total income	12%	12%	12%	12%	13%	14%	14%
Total Expenses	221,099	225,970	230,839	238,960	252,186	260,783	269,562
% of total income	35%	36%	37%	38%	40%	41%	43%
Balance after core personnel & expenses	410,101	405,230	400,361	392,240	379,014	370,417	361,638
% of total income	65%	64%	63%	62%	60%	59%	57%
Potential Field Crew for Implementation							
1 Seasonal (GS5) 6-months/year	15,407	15,920	16,434	16,947	17,461	17,975	18,488
Number of Seasonal Employees/year	27	25	24	23	22	21	20
Number of Seasonal Employees/year/park	3	3	2	2	2	2	2

All full-time personnel expenses include 30% benefits and a 4% annual cost of living increase. Seasonal staff includes 10% benefits.

Table 4. Summary of Northeast Temperate Network staffing scenarios showing total expenses (personnel, admin, travel, equipment) and balance remaining after expenses for each scenario (Tables 1-3).

	year1	year2	year3	year4	year6	year8	year10
Vital Signs Income	631,200	631,200	631,200	631,200	631,200	631,200	631,200
(excluding water quality funding: \$60,000)							
Scenario 1: I&M core staff & 3 crew leaders							
Total Expenses	387,067	397,471	407,873	421,527	445,902	460,199	474,675
% of total income	61%	63%	65%	67%	71%	73%	75%
Balance after core personnel & expenses	244,133	233,729	223,327	209,673	185,298	171,001	156,525
% of total income	39%	37%	35%	33%	29%	27%	25%
Scenario 2: I&M core staff plus 1 ecologist							
Total Expenses	298,224	305,666	313,107	323,800	342,207	353,450	364,877
% of total income	47%	48%	50%	51%	54%	56%	58%
Balance after core personnel & expenses	332,976	325,534	318,093	307,400	288,994	277,750	266,323
% of total income	53%	52%	50%	49%	46%	44%	42%
Scenario 3: I&M core staff only							
Total Expenses	221,099	225,970	230,839	238,960	252,186	260,783	269,562
% of total income	35%	36%	37%	38%	40%	41%	43%
Balance after core personnel & expenses	410,101	405,230	400,361	392,240	379,014	370,417	361,638
% of total income	65%	64%	63%	62%	60%	59%	57%